Quiz #3

1. How did you prepare for the first test? Please be specific.

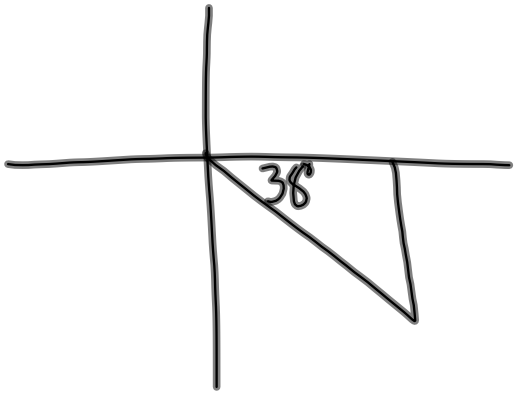
2. What do you plan to do differently for the next test? (e.g. go to Math Lab more often, work more homework problems, take more practice tests, etc.; maybe you don't plan to do anything differently?)

3. How well-prepared did you think you were for the test *before* you took it? What grade did you *expect* to make?

4. *After* taking the test, how well-prepared were you *actually*? What grade do you *think* you made?

5. Do you think that you will do more homework problems from the book from now on, watch more videos on Khan Academy, work more practice problems on Khan Academy, all three, none, or some combination? Which do you think you do enough of already and which do you think you need to do more of?

7. $\sin 38^\circ$ & $\cos 38^\circ$



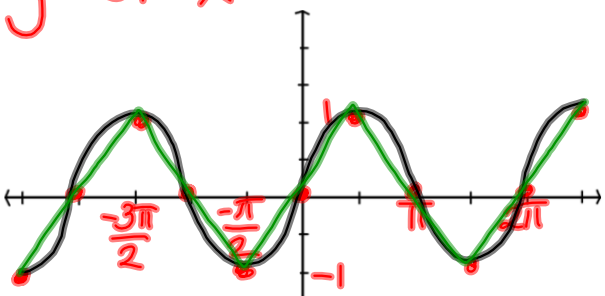
a. $\csc 322^\circ$

$= -\csc 38^\circ$

$= \boxed{-\frac{1}{\sin 38^\circ}}$

b. $\tan 52^\circ = \frac{\sin 52^\circ}{\cos 52^\circ} = \boxed{\frac{\cos 38^\circ}{\sin 38^\circ}}$

$y = \sin x$



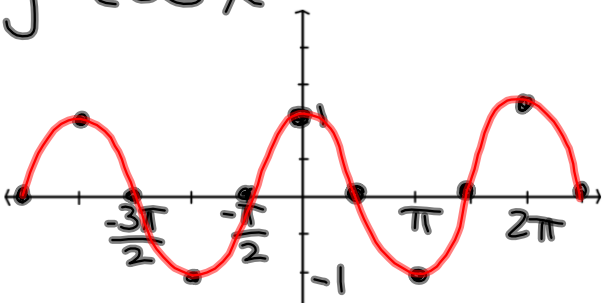
domain / range

$(-\infty, \infty)$ $[-1, 1]$

$\mathbb{R}$

$\wedge\vee\wedge\vee$ = bad

$y = \cos x$



domain $(-\infty, \infty)$

range $[-1, 1]$

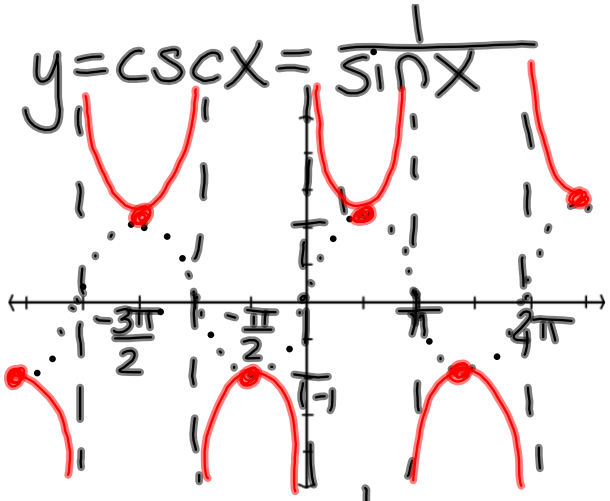
period: smallest interval over which a function repeats itself

Both sin & cos have a period of 2π

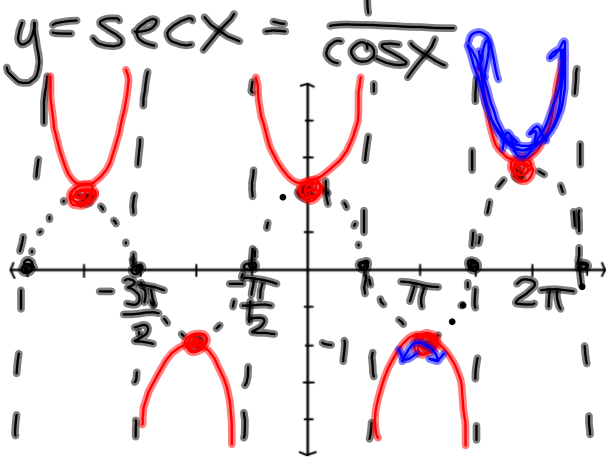
amplitude: $\frac{\text{Max} - \text{Min}}{2}$ = "max distance from x-axis" for unshifted graph

both sin & cos have amplitude 1

$y = \csc x = \frac{1}{\sin x}$



$y = \sec x = \frac{1}{\cos x}$



vertical asymptotes

period of $\sec x$ & $\csc x$ is 2π

domain: $\mathbb{R}$ except where $\sin x = 0$ (integer multiples of π)

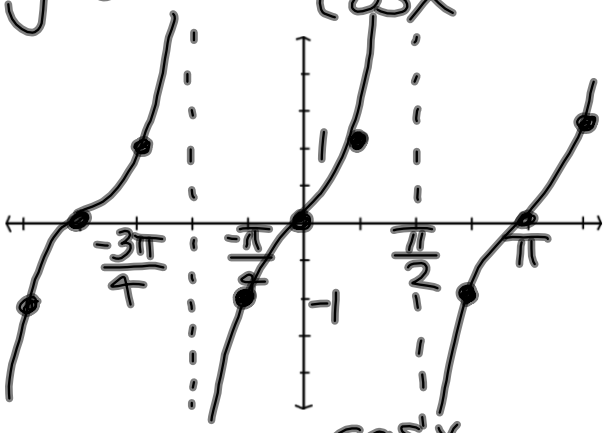
range: $(-\infty; -1] \cup [1, \infty)$

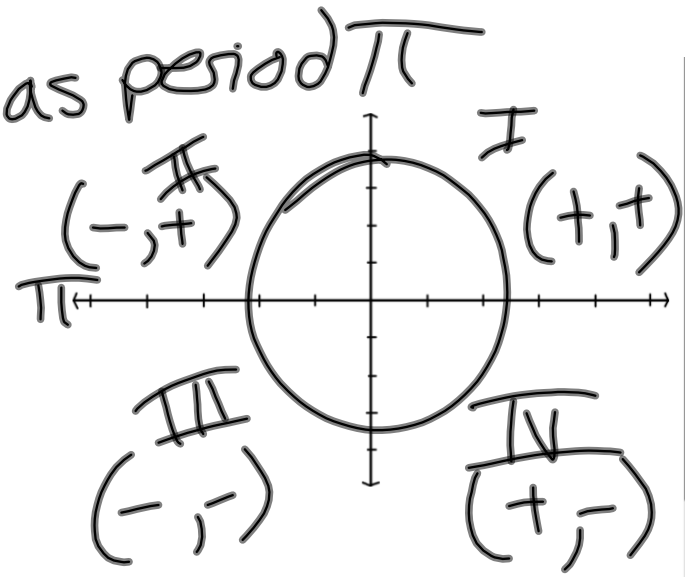
domain of $\sec x$:

$\mathbb{R}$ except where $\cos x = 0$

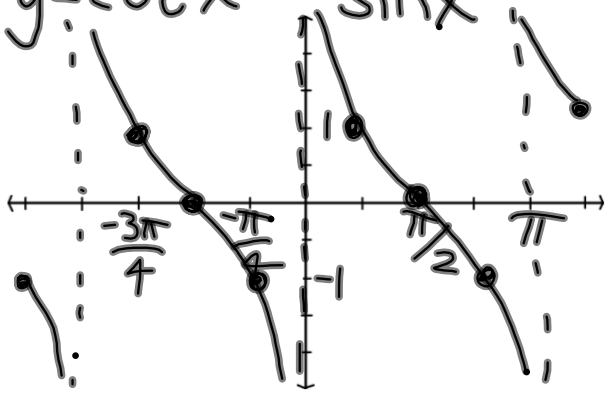
(odd multiples of $\pi/2$)

$y = \tan x = \frac{\sin x}{\cos x}$ has period π





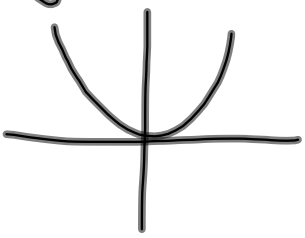
$y = \cot x = \frac{\cos x}{\sin x}$

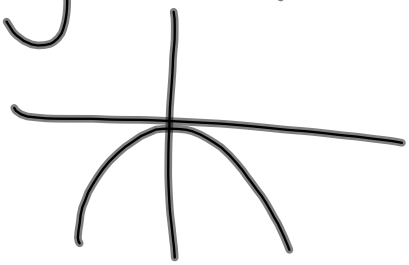


$y = f(x) \longrightarrow y = -f(x)$

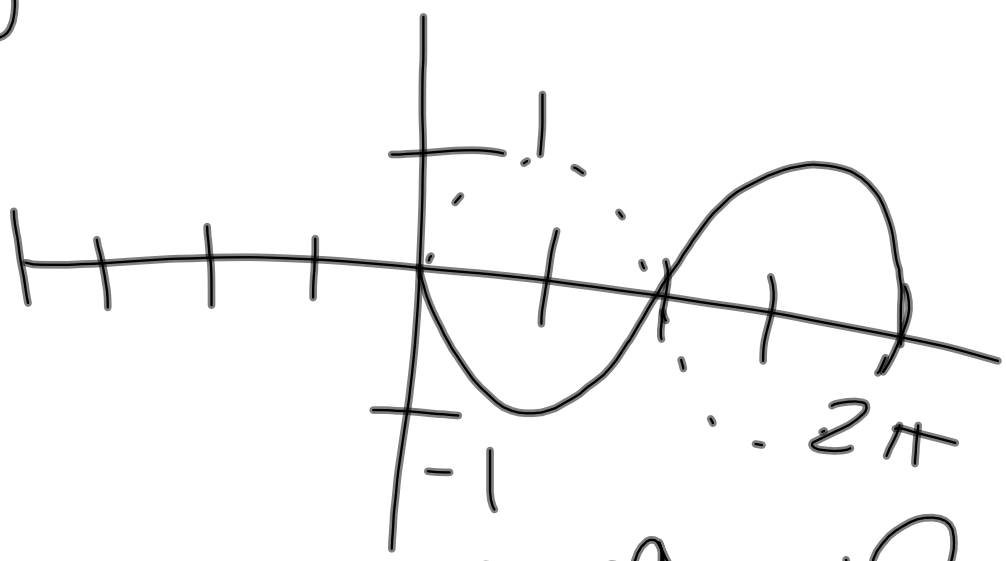
what does the (-) do to the graph? flips it upside down.

$y = x^2$ v. $y = -x^2$





$y = -\sin x$



HW: graphing #1-12